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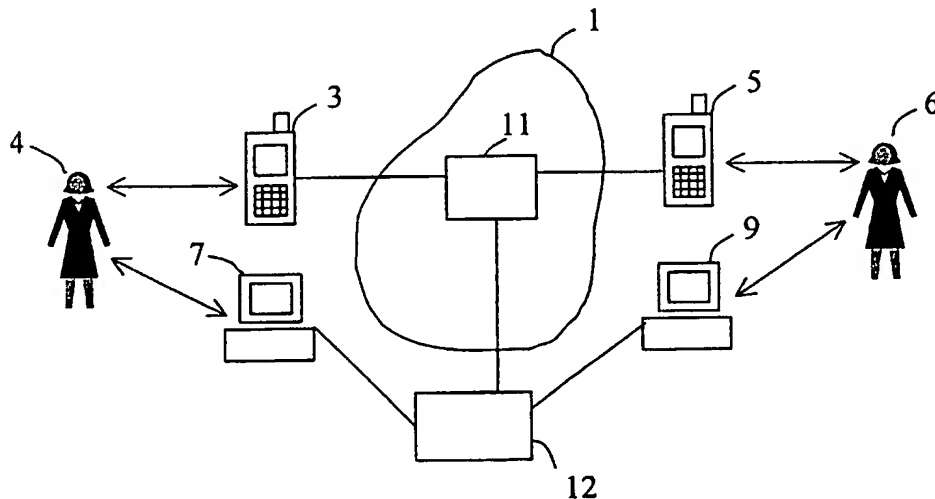
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(54) Title: A METHOD, SERVER AND SYSTEM FOR NOTIFYING A SECOND USER THROUGH A SECOND COMMUNI-
CATION MEDIUM THAT A FIRST USER HAS TRIED TO REACH THE SECOND USER THROUGH A FIRST COMMUNI-
CATION MEDIUM



(57) Abstract: A method and a notification server and system for notifying at least one second user (6) in a communication system that at least one first user (4) has tried to reach the second user (6) through a first communication medium. According to the invention the method comprises notifying the second user (6) through a second communication medium, which is different from the first communication medium and by attaching contacting means in the notification for the second user (6) to use to contact the first user (4).

**A METHOD, SERVER AND SYSTEM FOR NOTIFYING A SECOND USER
THROUGH A SECOND COMMUNICATION MEDIUM THAT A FIRST USER HAS
TRIED TO REACH THE SECOND USER THROUGH A FIRST COMMUNICATION
MEDIUM.**

TECHNICAL FIELD OF THE INVENTION

5 The present invention relates to a method for notifying at least one second user in a communication system that at least one first user has tried to reach the second user through a first communication medium.

It further relates to a notification server adapted to notify at least one second user
10 that at least one first user has tried to reach him.

It also relates to a notification system comprising a communication system to which at least one caller side communication device and at least one receiver side communication device are connectable.

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RELATED ART

In telecommunication two methods for notification are commonly used today. One is number presentation and the other is answering machines. With a number pre-
20 sender all the numbers of subscribers having tried to call the telephone to which the presenter is connected are stored and can be viewed by the owner of the telephone and the presenter. An answering machine is connected to a telephone and answers a call when no one else is answering. The caller can then leave a message on the answering machine for the owner of the telephone to listen to.

25

However both these methods have limitations. They are both connected to a telephone and they can not be accessed through another communication medium. The number presenter can not at all be accessed remotely.

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SUMMARY

An object of the present invention is to provide a flexible notification system to communication networks.

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A further object of the invention is to provide a system where the non reachable second user easily can contact the first user after having been notified.

10

These objects are achieved in a method as initially described further comprising notifying the second user through a second communication medium, which is different from the first communication medium and attaching contacting means in the notification for the second user to use to contact the first user.

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They are also achieved by a notification server as initially described wherein the notification server is connectable to a communication network and it comprises a notification means adapted to notify the second user through a second communication medium that the first user has tried to reach him through a first communication medium, which is different from the second communication medium. Furthermore the notification means is adapted to attach a contacting means to the notification for the second user to use to contact the first user.

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The objects are also achieved by a notification system as initially described, wherein said notification system further comprising a notification server as described above, which is connected to said communication system and to at least one receiver side communication device.

Hereby a flexible notification method, a notification server and a notification system are achieved.

Suitably the notification server is separated from the communication system. Hereby the notification server can be attached to already existing communication systems and the communication systems need not to be exchanged.

5 In one embodiment of the invention the method comprises first trying to reach the second user from the first user through a receiver side first communication device and when the second user was unreachable on this device notifying the second user through a receiver side second communication device.

10 Suitably either a connection is set up between the first user and the second user or the first user is informed that the second user now is reachable when the second user uses the contacting means.

Suitably the second user is notified through an e-mail, an instant message, a SMS
15 (Short Message Service), a MMS (Multimedia Messaging Service) or a voice message.

Preferably the method comprises setting up connections between the first and the second user through a communication system, informing a notification server when
20 the second user is unreachable, notifying the second user from the notification server that the first user has tried to reach him, informing the communication system from the notification server when and how a connection between the first and second user should be set up and setting up the connection from the communication system.

25 In one embodiment a question is sent to the first user from the notification server when the second user was unreachable asking if the first user wants to notify the second user. Hereby the first user can choose if he wants to notify the second user.

Suitably the method comprises mapping in mapping means in the notification server which communication devices that are connected to which users. Hereby the notification server knows to which devices questions and notifications should be sent.

- 5 In one embodiment the second user is first called up from the communication system when the connection should be set up after the notification procedure and when the second user answers an announcement server is activated which informs the second user that the first user now is being called up. Then the second user is called up and the first and the second users are connected when the first user answers.

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- Preferably the notification server comprises an information means, which is adapted to receive information from a communication system through which the first user tries to connect to the second user, said information telling when the second user is unreachable. The information means is further adapted to transmit information to
15 the communication system telling when and how a connection between the first and the second user should be set up.

- Suitably a first communication means, which is connected to the information means is adapted to communicate with the first user and ensure that the first user wants to
20 notify the second user that he has tried to reach him.

- In one embodiment the first communication means is adapted to send a question to the first user asking him if he wants to notify the second user and retrieve an answer to the question from the first user and instruct the notification means no notify the
25 second user if the answer was yes.

In one embodiment the notification means, which is connected to the first communication means and to a second communication means , which is adapted to communicate with the second user, is adapted to send a notification to a receiver side second

communication device when the first unsuccessful connection attempt from the first user to the second user was to a receiver side first communication device.

5 Suitably the notification server comprises a session identifier, which is adapted to replace the communication ID of the communication devices with a random number only recognised by the notification server itself in the notifications.

10 The contacting means can be an URL (Uniform Resource Locator) or a button for the second user to click on to either set up a connection to the first user or inform the first user that the second user now is reachable.

Alternatively the contacting means can be a SMS or a MMS telling the second user that he will contact the first user by replying the SMS or MMS.

15 BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1a shows a communication system where a first embodiment of the invention is implemented.

20 Fig. 1b shows a communication system where a second embodiment of the invention is implemented.

Fig. 2a is a flowchart of the first embodiment of the invention.

25 Fig. 2b is a flowchart of the second embodiment of the invention.

Fig. 3 shows a notification server according to the invention.

DETAILED DESCRIPTION OF EMBODIMENTS

Fig. 1a shows a communication system where the invention according to a first embodiment is implemented. It shows a network 1, which could be a telecommunication network, the Internet or any other kind of network. Communication devices are connected to the network 1. In this embodiment a caller side first communication device, here a first telephone 3 owned by a first user 4 and a receiver side first communication device, here a second telephone 5 owned by a second user 6 are connected to the network 1. They are connected to a communication system 11 in the network 1. In the case where the network 1 is a telephone network the communication system could be a telephone switch. The communication system 11 is connected to a notification server 12. Here the notification server 12 is shown to be located outside the network 1 but it could also be located in the same network as the communication system 11 or in another network. It is also possible that the notification server 12 is incorporated into the communication system 11.

A caller side second communication device, here a first computer 7, owned by the first user 4 and a receiver side second communication device, here a second computer 9 owned by the second user 6 are connected to the notification server 12. They could also be connected to the network 1 or to any other kind of network.

According to the invention the first user 4 tries to reach the second user 6 on the second telephone 5. The second user 6 is not reachable and the communication system 11 informs the notification server 12 about this. The notification server 12 sends in one embodiment back a message to the first user 4, either to the first telephone 3 or to the first computer 7, asking if he wants to notify the second user 6 that he has tried to reach him. The notification sever 12 maps the users' devices to see which devices are connected to which user. If the first user 4 says yes a notification, for example an e-mail is sent from the notification server 12 to the second computer 9 telling that the first user 4 has tried to reach the second user 6 on his telephone 5. In

this embodiment the notification is an e-mail, but other alternatives such as instant messaging are also possible. If the receiver of the notification is a mobile terminal instead of a computer the notification could be for example a SMS (Short Message Service), MMS (Multimedia Messaging Service) or a voice message. However, according to the invention, another communication medium than was used for the first connection shall be used for the notification. In this context different communication media could for example be an ordinary telephone call, e-mailing, sending an SMS, using MMS and instant messaging or voice messaging.

10 In another embodiment the first user 4 is not asked if he wants to send a notification to the second user 6 before the second user 6 is notified. This is preferred when the second user 6 wants to be informed every time someone tries to reach him. It is also possible that the first user 4 has informed the notification server 12 that he always wants to notify a second user when he does not get an answer. Also in this case a
15 question need not to be sent to the first user 4 before the notification is sent to the second user 6.

The notification to the second user 6 comprises contacting means for the second user to use for contacting the first user 4. In one embodiment of the invention the
20 means comprised in the notification to the second user 6 is an URL (Uniform Resource Locator). The notification comprises also a message telling that the first user 4 has tried to reach the second user 6 and information to the second user 6 that he can click the URL to set up a connection to the first user 4. An alternative is that the first user 4 only is informed that the second user now is available when the second
25 user 6 clicks the URL.

Other alternatives and more detailed description of the method are given in relation to the flowcharts in Fig. 2a and 2b.

Fig. 1b shows a communication system where a second embodiment of the invention is implemented. In this embodiment only one caller side communication device is present. In this case it is a first mobile terminal 14. The first mobile terminal 14 is connected to a network 13, which comprises a communication system 17 as described in relation to the first embodiment. A receiver side first communication device is here represented by a stationary telephone 16 and a receiver side second communication device is represented by a second mobile terminal 15. The first user 4 operates the first mobile terminal 14 and the second user 6 operates the stationary telephone 16 and the second mobile terminal 15. The stationary telephone 16 is connected to the network 13 and to the communication system 17. A notification server 18 is connected to the communication system 17, to the first mobile terminal 14 and to the second mobile terminal 15.

The scenario is the same as described for the first embodiment. The first user 4 tries to reach the second user 6 on the receiver side first communication means, here the stationary telephone 16, but he gets no answer. The communication system 17 informs the notification server 18 that the second user 6 could not answer his stationary telephone 16. The notification server 18 maps the second user's 6 communication devices 15,16 to see to which communication device a notification can be sent. According to one embodiment of the invention the notification server 18 sends a question to the first mobile terminal 14 asking the first user 4 if he wants to notify the second user 6 that he has tried to reach him. In another embodiment no such question is sent to the first user 4. In the latter case the second user 6 will always get a notification when someone has tried to reach him. In this embodiment the notification is sent from the notification server 18 to the receiver side second communication device, here the second mobile terminal 15, as for example a SMS.

When the second user 6 has answered the notification the notification server 18 informs the communication system 17 that a connection should be set up between the first and the second user. In this embodiment the communication system 17 first

calls the second user 6 on the stationary telephone 16 or on the second mobile terminal 15. When the second user 6 answers an announcement server 19, which is incorporated into or connected to the communication system 17 is activated and a voice message or a signal or possible also a text message is sent to the second user 6
5 informing the second user 6 that the first user 4 now is being called up.

A more detailed description of the second embodiment is given in relation to Fig. 2b.

10 Other combinations of the communication devices on the caller side and the receiver side are also possible. One type of mobile terminal could be a PDA (Personal Digital Assistant). Video devices or set-top-boxes are also possible devices. In one embodiment the receiver side first and second communication device could be the same device, for example a mobile terminal. If the first user tries to call the second
15 user on his mobile terminal and the second user does not answer the second user could be notified through an e-mail or a SMS to his mobile terminal that the first user has tried to reach him.

If the receiver side first communication device is a computer and the first user tries
20 to reach the second user through for example an e-mail to this computer the invention could be applicable when the second user not can receive the e-mail on the computer. A notification should then according to the invention be sent through a second communication medium to the second user. This could for example be a telephone call or a SMS to the receiver side second communication device, which in
25 this case could be a mobile terminal.

The idea according to the invention could be used also for video conferencing. Then maybe more than two users are involved and also more communication devices.

Fig. 2a is a flow chart describing the method according to the first embodiment of the invention shown in Fig. 1a. The steps of the method are described in order below:

- 5 S20: The first user 4 uses the first telephone 3 to try to call the second user 6 on the second telephone 5. The connection attempt is done over the network 1 and through the communication system 11.

10 The invention is only applicable when the second user is unreachable through this first communication medium. The second user could either be busy talking to someone else or he could have turned his telephone off or he could have not heard the ring signal.

S21: The communication system 11 recognises that the second user is unreachable.

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S22: The communication system 11 informs the notification server 12 that the second user was unreachable.

20 S23: The notification server 12 uses a data base over the first and second users different communication devices to find out to which devices a question to the first user and a notification to the second user should be sent.

25 S25: The notification server 12 delivers a question to the first user 4 asking if the first user 4 wants a notification to be sent to the second user 6 telling that the first user 4 has tried to reach the second user 6. The question could in this case be delivered either as an e-mail or an instant message to the first computer 7 or as an SMS or as a voice message to the first telephone 3.

S27: The first user 4 reads or listens to the question and answers to the server 12.

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These steps could in another embodiment be eliminated. This is the case if the first user 4 has informed the server 12 in advance that he always wants to notify the second user 6 or alternatively if the second user 6 has informed the server 12 that he always wants to be notified. Of course the second and the first user 4,6 could be different users from time to time as long as they both are connected to the network 1 and the communication system 11.

S29: If the second user 6 shall be notified the notification server 12 sends a notification either as an e-mail or an instant message to the second computer 9 or as a SMS, a MMS or possibly as a voice message to the second telephone 5. However, the notification should be sent on a different communication medium than the communication medium used for the unsuccessful first connection between the first and the second user. The notification comprises contacting means for the second user 6 to use for contacting the first user. In one embodiment, where the notification is an e-mail or an instant message, the contacting means is an URL. The second user 6 clicks the URL to contact the first user. The notification comprises also a message telling the second user that the first user 4 has tried to reach him and that a connection will be set up to the first user when he clicks the URL. In an alternative embodiment a message will only be sent to the first user 4 telling that the second user 6 now is reachable when the second user clicks the URL. In another embodiment the contacting means is a button for the second user 6 to click on. The contacting means could also be to simply reply the SMS if the notification was a SMS. When the second user replies the SMS a connection is set up between the first and the second user or alternatively the first user is informed that the second user now is reachable.

In one embodiment of the invention the notification server 12 uses a session identifier when the second user is notified. This improves the safety of the method and makes it possible for users to be anonymous. With a session identifier a random number representing the communication ID of the caller side first communication device is sent together with a name of the first user to the second user in the noti-

cation. This random number is only recognised by the notification server 12 and thus the system can not be abused from outside. The communication ID could be for example a telephone number or a IP-number.

5 S30: The second user uses the contacting means, i.e. clicks the URL or the button or replies the SMS or if the notification was a voice message answers this voice message.

10 S31: The notification server 12 informs the communication system 11 that a connection should be set up between for example the caller side first communication device and the receiver side first communication device. In another embodiment the server 11 only sends a message to the first user 4 telling that the second user 6 now is reachable. The message could either be a message to the first computer 7 or a message to the first telephone 3 in the same way as discussed above.

15 S32: The communication system 11 sets up a connection between the first and the second user. In one embodiment the communication system 11 calls the receiver side first communication device 5 first. When the second user 6 answers an announcement server connected to or incorporated in the communication system gives
20 a signal or a voice message to the second user 6 informing the second user that the first user 4 is being called up. The first user is called up and when he answers the connection between the first and the second user is established. The announcement server could in another embodiment also inform the second user through images or text messages that the first user is being called up. In one embodiment the an-
25 nouncement server is an IVR (Interactive Voice Response).

Fig. 2b is a flowchart of the method according to the second embodiment of the invention shown in Fig. 1b. The steps are described in order below:

S40: The first user 4 uses the first mobile terminal 14 to call the second user 6 on his stationary telephone 16.

5 The second user 6 is unreachable on his stationary telephone 16. Maybe he is busy speaking in the stationary telephone 16 or he is not at home.

S41: The communication system 17 notices that the second user 6 is unreachable.

10 S42: The communication system 17 informs the notification server 18 that the second user was unreachable.

15 S43: The notification server 18 uses a data base over the first and second users different communication devices to find out to which device a question to the first user and a notification to the second user should be sent.

S44: In this embodiment the server sends a question to the first user 4 asking if the first user 4 wants to notify the second user 6. This question is sent to the first user 4 according to any one of the examples given in the description of the first embodiment.

20 S45: The first user 4 answers the question.

S47: If the first user 4 wanted to notify the second user 6, the server 18 sends a notification to the second user's mobile terminal 15. This notification could be for example a SMS or a voice message telling the second user 6 that if he replies the message a connection will be set up between his mobile terminal 15 and the first mobile terminal 14 or alternatively between the stationary telephone 16 and the first mobile terminal 14. In another embodiment a message is sent from the server 18 to the first user 4 when the second user 6 replies the notification. This message informs the first user 4 that the second user 6 now is reachable on his mobile terminal 15. Also in

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this embodiment a session identifier as described in relation to the first embodiment could be used for improving safety.

S49: The second user 6 replies the notification.

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S50: The notification server 18 informs the communication system that a connection should be set up between in this embodiment the first mobile terminal 14 and the second mobile terminal 15.

10 S51: The communication system 17 calls the second user 6 on the second mobile terminal 15.

15 S53: The announcement server 19 is activated when the second user 6 answers and a voice message, a signal or a text message informing the second user 6 that the first user 4 is being called up is transferred to the second user 6 from the announcement server 19.

S55: The first mobile terminal 14 is called up from the communication system 17.

20 S57: The first user 4 answers and a connection is established between the first and the second users 4,6.

25 In a third embodiment the second user's mobile terminal 15 is replaced by a computer. Then the notification server 18 notifies the second user 6 that someone has tried to reach him on his stationary telephone 16 by sending for example an e-mail to the computer.

The caller and receiver side first and second communication devices could all be computers, mobile terminals, stationary telephones or other similar communication

devices which can be connected to networks. All possible variants will not be described here.

Fig. 3 shows a notification server according to the invention. It comprises an information means 60 adapted to receive information from and transmit information to a communication system to which it is connectable. The information received from the communication system is information about when the second user was unreachable according to what was described in relation to Figures 1 and 2. The information that is transmitted to the communication system is information about when and how the connections should be set up between the first and the second users. Furthermore the notification server comprises a first communication means 61 and a second communication means 63 both connected to the information means 60. The first communication means 61 is adapted to communicate with the first user through his caller side communication device(s), for example a telephone or a computer. The second communication means 63 is adapted to communicate with the second user through the receiver side communication device(s). The communication is described above in relation to Figures 1 and 2. Questions and notifications are sent between the notification server and the users.

The first communication means 61 is in one embodiment adapted to prepare a question and send it to the first user 4. In this question the first user 4 is asked if he wants to notify the second user that he has tried to reach him. In an alternative embodiment the first user 4 could already have informed the notification server that he always wants to notify the users he tries to connect to who are unreachable. Different possible ways of asking the first user are described in relation to Fig. 2a and 2b. In a further alternative embodiment the second user 6 has informed the notification server that he always wants to be informed when someone has tried to reach him.

In this embodiment the first communication means 61 is adapted to forward the answer retrieved from the first user 4 to a notification means 67 comprised in the noti-

fication server and connected to both the first and the second communication means 61,63. The notification means 67 is adapted to prepare and send a notification according to what has previously been described to the second user 6 through the second communication means 63. The notification should be sent through a communication medium which is not the same communication medium as the first connection from the first user 4 to the second user 6 used. For example the notification could be an e-mail or a SMS when the first communication medium was a normal telephone connection. In one embodiment the notification is sent to a receiver side second communication device if the second user 6 was unreachable on a receiver side first communication device. For example if the first user called the second user on his telephone the notification could be sent to the second user's computer.

The notification comprises according to the invention a contacting means for the second user to use to contact the first user. As described above the notification could for example be an e-mail sent to a computer. As contacting means this e-mail can comprise an URL together with a message. When the second user clicks on this URL the second communication means 63 notices this. In one embodiment the information means 60 informs the communication system to set up a connection between the first and the second user. In an alternative embodiment the second communication means 63 sends a message through the first communication means 61 to the first user telling that the second user now is reachable and possibly also on which communication device he is reachable when the second user uses the contacting means.

The information means 60 also comprises mapping means 65 adapted to use a data base to see which different communication devices the first and the second user are connected to. Furthermore the notification means suitably comprises a session identifier means 68 adapted to replace the communication ID of the first user's communication devices with random numbers in the notification as described above. The communication ID could for example be a telephone number or an IP-address.

CLAIMS

1. A method for notifying at least one second user (6) in a communication system
5 that at least one first user (4) has tried to reach the second user (6) through a first
communication medium, **characterised by** notifying the second user (6) through
a second communication medium, which is different from the first communica-
tion medium and by attaching contacting means in the notification for the second
user (6) to use to contact the first user (4).
- 10 2. A method according to claim 1, **characterised by** first trying to reach the second
user (6) from the first user (4) through a receiver side first communication de-
vice (5;16) and when the second user (6) was unreachable on this device (5;16)
notifying the second user (6) through a receiver side second communication de-
15 vice (9;15).
3. A method according to claim 1 or 2, **characterised by** either setting up a con-
nection between the first user (4) and the second user (6) or informing the first
user (4) that the second user (6) now is reachable when the second user (6) uses
20 the contacting means.
4. A method according to any one of the preceding claims, **characterised by** noti-
fying the second user (6) through an e-mail, an instant message, a SMS (Short
Message Service), a MMS (Multimedia Messaging Service) or a voice message.
- 25 5. A method according to any one of the preceding claims, **characterised by** set-
ting up connections between the first and the second user (4,6) through a com-
munication system (11;17), informing a notification server (12;18) when the
second user (6) is unreachable, notifying the second user (6) from the notifica-
30 tion server (12;18) that the first user (4) has tried to reach him, informing the

communication system (11;17) from the notification server (12;18) when and how a connection between the first and second user (4,6) should be set up and setting up the connection from the communication system (11;17).

- 5 6. A method according to any one of the preceding claims, **characterised by** sending a question to the first user (4) from the notification server (12;18) when the second user (6) was unreachable asking if the first user (4) wants to notify the second user (6).
- 10 7. A method according to any one of the preceding claims, **characterised by** mapping in the notification server (12;18) which communication devices that are connected to which users.
- 15 8. A method according to any one of the preceding claims, **characterised by** first calling the second user (6) from the communication system (11;17) when the connection should be set up after the notification procedure and when the second user (6) answers activating an announcement server (19) which informs the second user (6) that the first user (4) now is being called up, calling up the second user and connecting the first and the second users (4,6) when the first user (4)
20 answers.
- 25 9. A method according to any one of the preceding claims, **characterised by** first trying to reach the second user (6) from the first user (4) through a telephone (5;16) and notifying the second user (6) through a computer (9) or a mobile terminal (15) when he was unreachable on the telephone (5;16).
- 30 10. A notification server adapted to notify at least one second user (6) that at least one first user (4) has tried to reach him, **characterised in that** the notification server is connectable to a communication network and in that it comprises a notification means (67) adapted to notify the second user (6) through a second com-

munication medium that the first user (4) has tried to reach him through a first communication medium, which is different from the second communication medium and in that the notification means is adapted to attach a contacting means to the notification for the second user (6) to use to contact the first user (4).

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11. A notification server according to claim 10, **characterised in that** it comprises an information means (60), which is adapted to receive information from a communication system (11;17) through which the first user (4) tries to connect to the second user (6), said information telling when the second user (6) is unreachable, said information means further being adapted to transmit information to the communication system (11;17) telling when and how a connection between the first and the second user should be set up.

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12. A notification server according to claim 10 or 11, **characterised in that** it comprises mapping means (65) adapted to map which communication devices that are connected to which users.

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13. A notification server according to any one of the claims 10-12, **characterised in that** a first communication means (61), which is connected to the information means (60) is adapted to communicate with the first user and ensure that the first user (4) wants to notify the second user (6) that he has tried to reach him.

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14. A notification server according to claim 13, **characterised in that** the first communication means (61) is adapted to send a question to the first user (4) asking him if he wants to notify the second user (6) and retrieve an answer to the question from the first user (4) and instruct the notification means (67) to notify the second user (6) if the answer was yes.

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15. A notification server according to any one of the claims 10-14, **characterised in that** the notification means (67), which is connected to the first communication

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means (61) and to a second communication means (63), which is adapted to communicate with the second user (6), is adapted to send a notification to a receiver side second communication device (9;15) when the first unsuccessful connection attempt from the first user (4) to the second user (6) was to a receiver side first communication device (5;16).

16. A notification server according to any one of the claims 10-15, **characterised in that** the notification means (67) is adapted to send an e-mail, an instant message, a SMS (Short Message Service) or a MMS (Multimedia Messaging Service) to notify the second user (6).

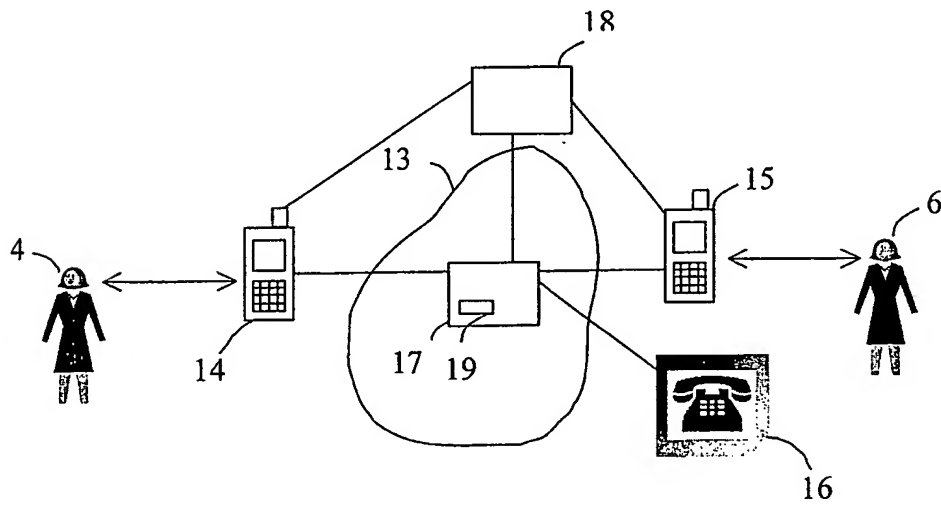
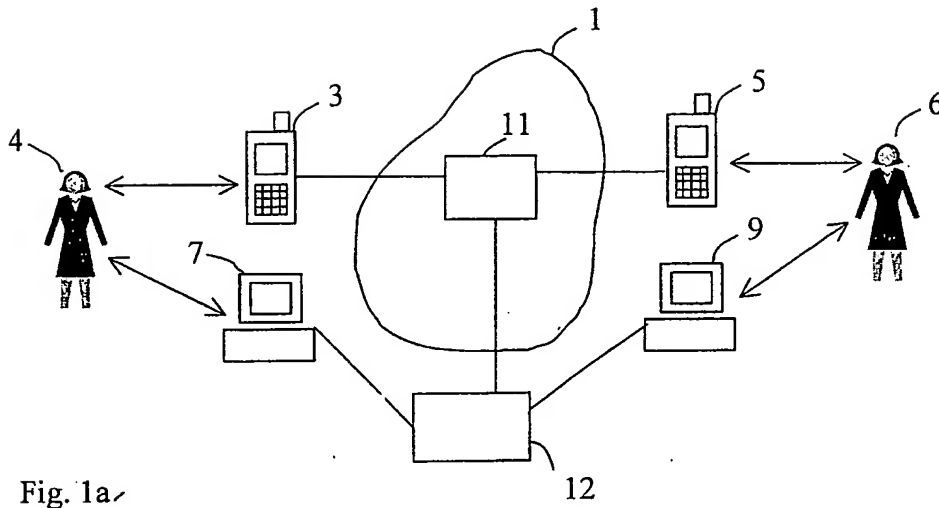
17. A notification server according to any one of the claims 10-16, **characterised in that** it comprises a session identifier (68), which is adapted to replace the communication ID of the communication devices with a random number only recognised by the notification server itself in the notifications.

18. A notification server according to any one of the claims 10-17, **characterised in that** the notification means (67) is adapted to attach contacting means in the notification for the second user (6) to use to either set up a connection to the first user (4) or to inform the first user (4) that the second user (6) now is reachable.

19. A notification server according to claim 18, **characterised in that** the contacting means is an URL (Uniform Resource Locator) or a button for the second user (6) to click on to either set up a connection to the first user (4) or inform the first user (4) that the second user (6) now is reachable.

20. A notification server according to claim 18, **characterised in that** the contacting means is a SMS or a MMS telling the second user (6) that he will contact the first user (4) by replying the SMS or MMS.

21. A notification server according to any one of the claims 10-20, **characterised in**
that it is adapted to inform the first user (4) that the second user (6) now is
reachable or inform the communication system (11;17) to set up a connection
between the first and the second user (4,6) when the second user (6) uses the
5 contacting means.
22. A notification system comprising a communication system (11;17) to which at
least one caller side communication device and at least one receiver side com-
munication device are connectable, said notification system further comprising a
10 notification server (12;18) according to any one of the claims 10-21, which is
connected to said communication system (11;17) and to at least one receiver side
communication device.



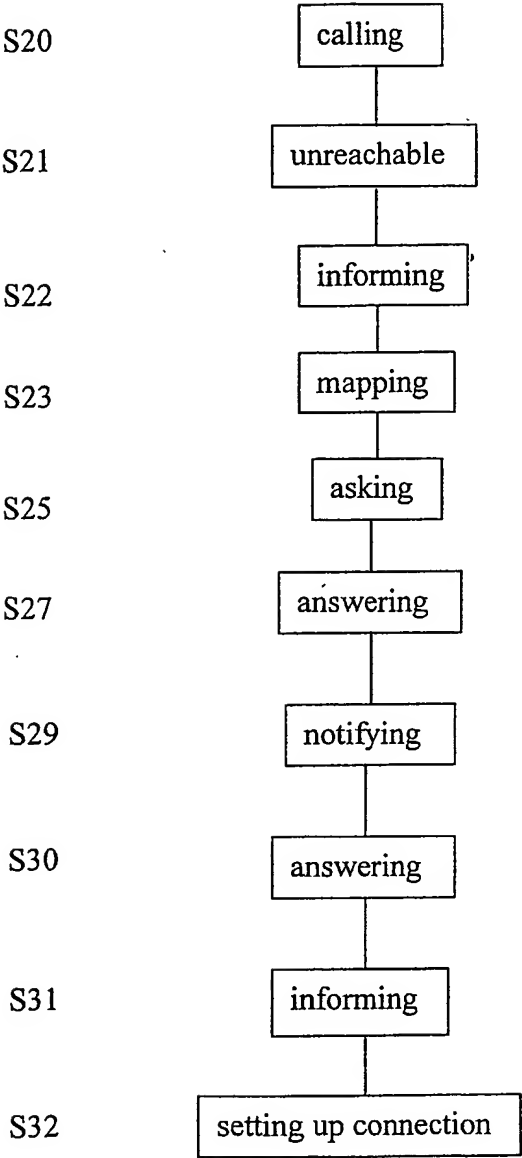


Fig. 2a

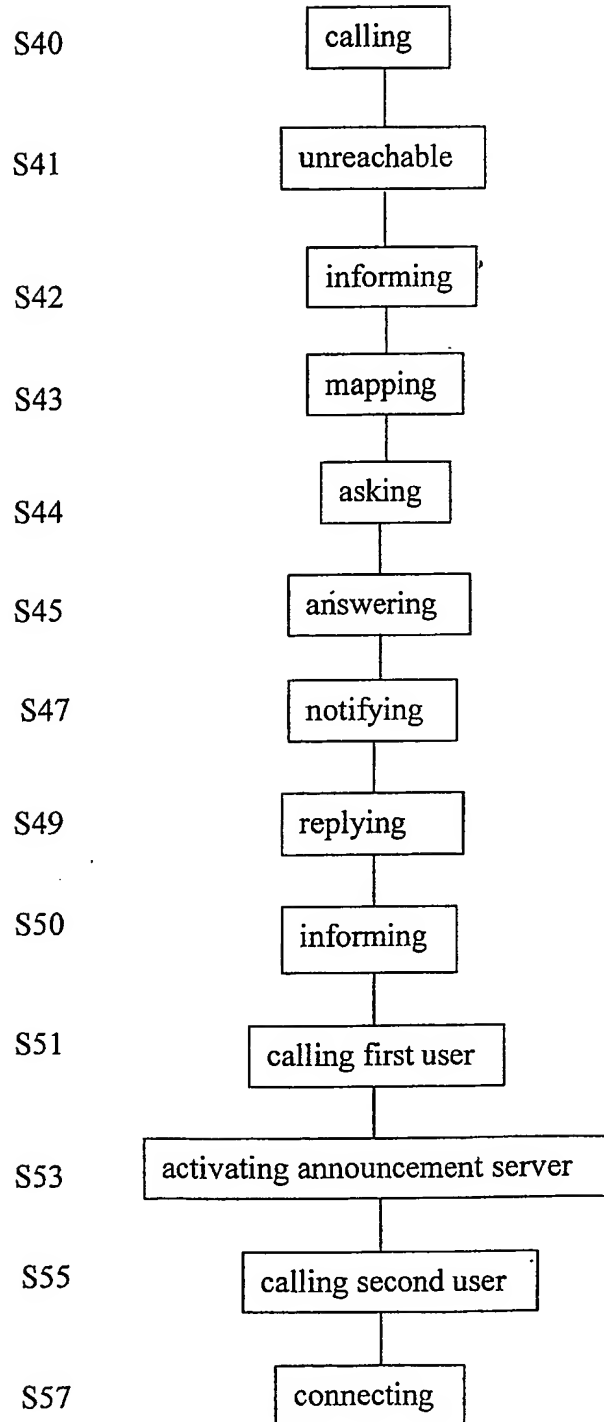


Fig. 2b

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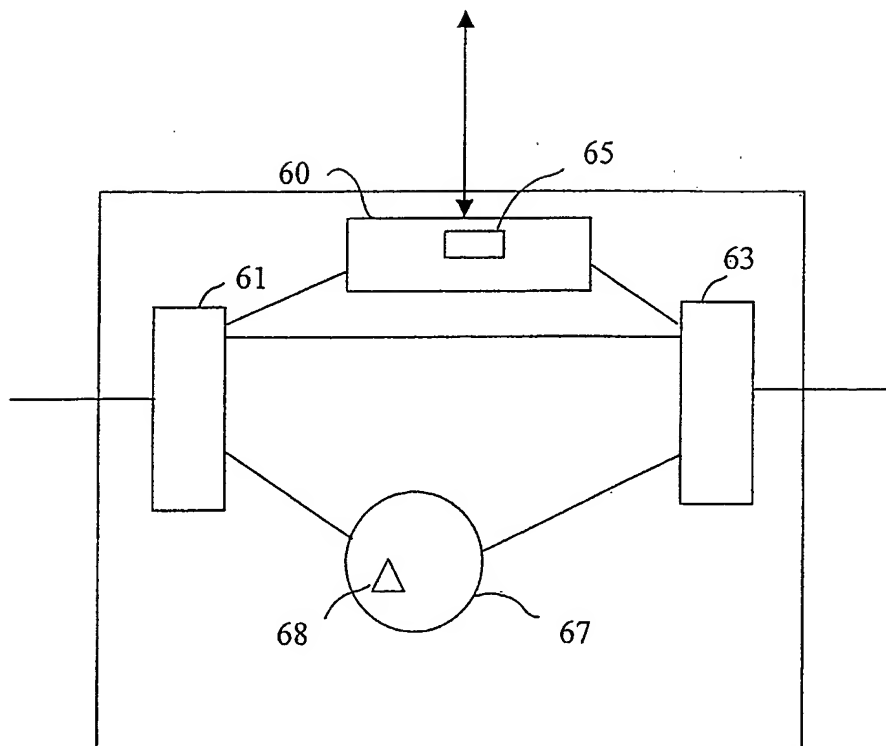


Fig. 3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 02/01478

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: H04M 3/54, H04M 3/42

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: H04M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 0120884 A1 (MCI WORLD COM INC), 22 March 2001 (22.03.01), page 1 - page 7	1-2,4,6-7, 9-10,12-16, 22
Y	page 1 - page 7	3,5,8,11, 17-21
	--	
Y	WO 0150729 A1 (WEINSTEIN, LEE), 12 July 2001 (12.07.01), page 4 - page 8	3,5,8,11, 17-20
	--	
Y	US 6175616 B1 (LIGHT ET AL), 16 January 2001 (16.01.01), abstract	21
	--	

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents

"A" document defining the general state of the art which is not considered to be of particular relevance

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"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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"&" document member of the same patent family

Date of the actual completion of the international search

11 November 2002

Date of mailing of the international search report

12 -11- 2002

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 02/01478

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5742905 A (PEPE ET AL), 21 April 1998 (21.04.98), column 2, line 50 - column 3, line 29; column 5, line 28 - column 6, line 19, figure 1, abstract -----	1-2,4,10,22

INTERNATIONAL SEARCH REPORT
Information on patent family members

28/10/02

International application No.
PCT/SE 02/01478

Patent document cited in search report			Publication date	Patent family member(s)		Publication date
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				EP	1219099 A	03/07/02
WO	0150729	A1	12/07/01	US	2001026609 A	04/10/01
US	6175616	B1	16/01/01	US	2001005412 A	28/06/01
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				EP	0782805 A	09/07/97
				JP	9511884 T	25/11/97
				US	5742668 A	21/04/98
				WO	9609714 A	28/03/96